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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEUNG, PHILIP H

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 04/23/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/758,611

Applicant(s)
GRAVES et al

Examiner
Philip H. Leung

Art Unit
3742



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above, claim(s) 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jul 8, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action:
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7 and 9
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 3742

DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I.* **Claims 1-28**, drawn to a combination microwave and convection heating oven and method, classified in class 219, subclass 681.
- II.* **Claims 29-34**, drawn to a method of controlling the cooking temperature of an oven, classified in class 99, subclass 325.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions *Group II* and *Group I* are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method of *Group II* does not require the apparatus of *Group I* as it is not drawn to a combination oven. It can be used for any cooking oven and the combination oven of *Group I* does not need the temperature control of *Group II*, for instance, a timer control can be used instead.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter and the search required for *Group I* is not required for *Group II* and vice versa, restriction for examination purposes as indicated is proper.

Art Unit: 3742

4. During a telephone conversation with Mr. Bruce Atkins on April 14, 2003 a provisional election was made with traverse to prosecute the invention of *Group I*, **claims 1-28**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 29-34** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title should reflect the use of microwave heating.

7. The drawings filed 7-8-02 are acceptable.

Art Unit: 3742

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claim 17** is rejected under 35 U.S.C. 102(b) as being anticipated by *Larsen et al* (US 4,332,992).

As shown in Figures 1 and 7, an oven includes a cooking cavity 12, a plurality of modules for delivering energy into the cavity, including a resistance heater 17 for convectional radiant energy and thermal energy and a magnetron 18 for microwave energy and a control 20 configured to operation a microwave cooking mode 42, a convection/bake cooking mode 38 and a speedcook combination mode 40 with separate temperature and power level control 30 and 32 (see col. 3, line 64 - col. 4, line 53)

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3742

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-14 and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Larsen et al* (US 4,332,992), in view of *Boehm* (US 3,320,396) (cited by the applicants) or *Tanabe* (US 4,463,238).

Larsen shows an oven having a cooking cavity 12, a plurality of modules for delivering energy into the cavity, including a resistance heater 17 for convectional radiant energy and thermal energy and a magnetron 18 for microwave energy and a control 20 configured to operation a microwave cooking mode 42, a convection/bake cooking mode 38 and a speedcook combination mode 40 with separate temperature and power level control 30 and 32 (see Figures 1 and 7 and col. 3, line 64 - col. 4, line 53). It does not shows the use of a lower heater. *Boehm* or *Tanabe* shows that it is well known in the art of microwave oven to provide an upper heater and a lower heater inside the cooking cavity of a microwave oven so that food can be heated from above and below in addition to microwave energy (see *Boehm*, Figures 1 and 6 and col. 3, line 3 - col. 4, line 59 and *Tanabe*, Figure 1 and col. 2, lines 30-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Larsen* to use another

Art Unit: 3742

resistor heater on the lower part of the oven cavity so that food can be heated from above and/or below the food for more selective cooking and/or more uniform cooking result, in view of the teaching of *Boehm* or *Tanabe*. In regard to claims 11-14 and 22-24, *Boehm* or *Tanabe* also teaches to selectively energy each microwave, upper and lower heaters depending on the desired cooking program (see *Boehm*, col. 8, line 35 - col. 9, line 24 and *Tanabe*, Figures 5 and 6 and col. 3, line 49 - col. 4, line 27).

12. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Larsen et al* (US 4,332,992), in view of *Boehm* (US 3,320,396) or *Tanabe* (US 4,463,238), as applied to claims 1-14 and 18-28 above, and further in view of *McKee et al* (US 6,060,701) or *Ishifuro et al* (US 4,831,225) (cited by the applicants).

Larsen combined with *Boehm* or *Tanabe* discloses the claimed invention except for the use of a temperature sensor for detecting the oven cavity temperature to control the operation of the oven. *McKee* shows a combination microwave convection oven with temperature sensing devices 30 and 30' to control the operation of the thermal energy source 25 and the hot air circulating assembly 40 (see Figures 4 and 5, col. 4, line 48 - col. 5, line 59 and col. 11, lines 1-14). *Ishifuro* also shows that it is well known in the art of microwave convective ovens to use a temperature sensor to sense the oven air temperature to control the operation of the air circulating blower 6 (see Figures 1-3, col. 2, line 42 - col. 4, line 68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Larsen* to provide a

Art Unit: 3742

temperature sensing system to monitor the temperature of the cooking cavity to feedback control the operation of the oven components such as, the heater, the microwave source and/or the blower for more precise heating control and better cooking result, in view of the teaching of *McKee* or *Ishifuro*.


13. The prior art made of record below is considered pertinent to applicant's disclosure:

White (US 3,569,656), *Constable* (US 3,716,687) and *Sharp* (JP 2-301988) are further cited to show microwave ovens having resistive heaters with various features as claimed.

14. Any inquiry concerning any communication from the examiner should be directed to Examiner Leung whose telephone number is (703) 308-1710. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg, can be reached on (703) 308-1327. The fax phone number for this Group is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.


PHILIP H. LEUNG
PRIMARY EXAMINER
ART UNIT 3742

P.Leung/pl
4-20-03